



**International Forestry**

CONSULTANTS, INC.

11415 NE 128th Street, Suite 110 Kirkland WA 98034 USA

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**TREE PLAN FOR GLENEALY COURT  
SHORT PLAT  
11240 AND 11406 NE 112<sup>TH</sup> STREET  
KIRKLAND, WASHINGTON**

BY PLANNING DEPARTMENT PM

PARCEL Nos. 332605-9083 (NE), 322605-9103 (NW), and 322605-9101 (SW)



July 16, 2007

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Survey Map – Displaying Tree Locations, Tree Numbers, Driplines, Tree protection fencing Locations and “Limits of Disturbance (To Be Incorporated onto Site Plan)

Site Plan Specifications (To Be Incorporated onto Site Plan)

## **1. Introduction**

International Forestry Consultants (INFO) was contacted by Mark Rigos of Concept Engineering, on behalf of Hamish Anderson, and was asked to compile a 'Tree Plan' report for a proposed 11-lot small subdivision located within the City of Kirkland, Washington.

The present site addresses of the proposed residential development is 11240 and 11406 NE 112<sup>th</sup> Street, encompassing three current tax parcels: 322605-9083 (NE), 322605-9103 (NW), and 3226059101- (SW). Our task is to conduct a field assessment and to prepare a written report on present tree conditions, which is to be filed with the preliminary permit application.

This report encompasses all the criteria set forth under the City of Kirkland's tree regulations. The required minimum tree density for the total site area (143,688 sq. ft.) is 72 tree credits.

Date of Field Examination: June 28 and 29, 2007

## **2. Description**

The total site area covered by this plan is an unusual upside-down U shape, with the proposed development lots clustered at the north end. Two existing single-family dwellings and three outbuilding structures are presently located on the three parcels. The west side of the site slopes gently to the east, while the east side is nearly level. A wetland has been delineated in the northeastern corner of the area. Apparently not maintained by the present residents, much of the ground surrounding and south of the present 11406 NE 112<sup>th</sup> Street is covered by a thick tangle of invasive blackberry vines.

173 significant trees were located and assessed on the parcel. Following the guidelines specified by the City of Kirkland's municipal development planning process, all the significant trees on the development parcels were inventoried and assessed. Local government defines a "significant tree" as one with a DBH (diameter at breast height, 4 ½ feet above ground) of six inches or greater. Trees and shrubs smaller than 6" DBH were not considered to be in the purview of this report.

Under municipal guidelines, trees growing on neighboring properties whose branches and drip lines encroach on the subject parcels are also inventoried and assessed. This tree plan includes 32 of these trees, which are actually rooted on adjacent parcels. The majority of these are situated adjacent to the access routes.

All the significant trees on the property have been identified with a numbered aluminum tag attached to the tree at DBH (diameter at breast height, 4 ½ feet above ground).

## **3. Methodology**

Each tree in this report was visited on foot. Tree diameters were measured by tape and tree heights were measured using a Spiegel Relaskop. Each tree was visually examined for defects and vigor. The tree assessment procedure involves the examination of many factors:

- The crown of the tree is examined for current vigor. This is comprised of inspecting the crown (foliage, buds and branches) for color, density, form, and annual shoot growth, limb dieback and disease. The percentage of live crown is estimated for coniferous species only and scored appropriately.
- The bole or main stem of the tree is inspected for decay, which includes cavities, wounds, fruiting bodies of decay (conks or mushrooms), seams, insects, bleeding, callus development, broken or dead tops, structural defects and unnatural leans. Structural defects include crooks, forks with V-shaped crotches, multiple attachments, and excessive sweep.

- The root collar and roots are inspected for the presence of decay, insects and/or damage, as well as to determine if they have been injured, undermined or exposed, or original grade has been altered.

A determination of viability is made based on these factors. Trees considered not viable are those in a poor or declining condition due to disease, extensive decay and/or cumulative structural defects, which exacerbate failure potential. Inspection methods included examining the trees with binoculars and sounding the trunks and surface roots with a rubber mallet. No invasive methods were used to assess conditions, unless specified in this report.

#### **4. Observations**

The majority of significant trees on the subject properties are in fair to good condition and range from young to mature in age class. Detailed information including size and dripline measurements can be found in the Tree Summary Table included with this report. Groups of significant trees on the site and noteworthy individual ones are discussed here.

A productive growing site, the property contains a large number of Douglas-firs (*Pseudotsuga menziesii*) and a significant percentage of these are large, tall trees greater than 20" DBH and 100 feet in height. The Douglas-firs are mostly clustered in the northern/northwestern (Lots 6-8) and southeastern (Lots 1-3) corners of the proposed building area. Most of these Douglas-firs are in good condition but some areas (such as those east of the shed adjacent to 11240 NE 112<sup>th</sup> Street) show symptoms of decline associated with laminated root rot (*Phellinus weirii*). Several Douglas-firs have fallen/blown down in the area east of the shed adjacent to 11240 NE 112<sup>th</sup> Street and some of the remaining standing trees in this pocket have suspiciously thin crowns.

The one wetland is located in the northeastern corner of the site and the tree species composition here reflects the hydric soils. This area is dominated by tall black cottonwoods (*Populus trichocarpa*), a fast-growing early-successional species which requires full sunlight. Also noteworthy here is a large, mature silver maple with a sweeping and crooked trunk. It has a very large asymmetric crown spread, extending mostly to the east.

The steepest ground on the property, a small hill on the west side of the proposed development site contains a fragment of remnant native forest. Most of the trees here are hardwoods, big leaf maple (*Acer macrophyllum*) in particular. The vegetation here is dense and mostly non-native.

Scattered around the site, four groups of evergreen trees appear to have been planted in rows and were likely intended as "living fencerows" along three different property lines and in front of the barn adjacent to 11406 NE 112<sup>th</sup> Street. Since these Western red cedars (*Thuja plicata*), Deodar cedars (*Cedrus deodara*), and Douglas-firs were planted close together and never thinned, many of them are in poor condition due to their crowding and resulting narrow or lopsided, thin crowns. Douglas-fir is shade-intolerant, requiring full sunlight to be viable.

Several native bitter cherries (*Prunus emarginata*) are scattered across the site. These are pioneer, short-lived trees. A few planted apple trees (*Malus* spp.) are found near the existing houses, mostly in fair to poor condition but still hanging on. Other minor species represented on the subject property are European mountain ash (*Sorbus acuparia*), Pacific madrone (*Arbutus menziesii*), and cascara (*Rhamnus pershiana*). The majority of these are over-mature and in a poor, declining condition.

2 young to semi-mature big leaf maples were identified on the south property line of proposed lot 11. For some reason these were not surveyed. Their approximate locations have been plotted on the site plan.

All trees on the site determined to be nonviable are discussed in the table below:

<b>TREE/ TAG#</b>	<b>SPECIES</b>	<b>REASON NONVIALE/COMMENTS</b>
9231	bitter cherry	old broken top; total loss
9232	big leaf maple	weak form; four stems from stump sprouts
9252	western red cedar	dying top and decay in butt
9254	European mountain ash	poor health, dead branches, and leaning to west
9259	big leaf maple	large decay cavity at base and overtopped
9261	Pacific madrone	heavy lean to adjacent property
9264	big leaf maple	cluster of five 4-10" decrepit stems, topped
9271	cascara	dead branches, included bark, and general decay
9649	Douglas-fir	chlorotic (yellow), thin crown with some dieback; suspect root rot
9707*	European mountain ash	cracked upper bole and in general decline
9715	black cottonwood	poor taper and overtopped – in declining stage
9716	black cottonwood	intermediate/overtopped – in declining stage
9741*	black cottonwood	poor taper and leaning north.
9787	apple	broken lower fork and extensive decay
9821	Deodar cedar	recently dead; overcrowded in row of trees
9822	Deodar cedar	recently dead; overcrowded in row of trees
9830	Lawson cypress	suppressed/overcrowded in row of trees
9831	Lawson cypress	suppressed/overcrowded in row of trees
10041	western red cedar	thin crown, suppressed growth
10042	western red cedar	thin crown; overcrowded among other trees
10072	bitter cherry	dead snag tree; conks on lower trunk

\*growing on adjacent properties

## 5. Discussion

Seven of the trees selected for retention are nonviable. These are 9821, 9822, 9830, 9831, 9264, 9715 and 9716. All of these are either dead or in serious decline. All nonviable trees have been identified in red on the attached site plan. All Douglas-fir trees suspected of root disease infection will be removed as part of the proposal. These are all situated within building footprints.

Tree #9551 has been selected for retention; however, doing so does not seem practicable. This tree has a significant lean to the northwest, off the subject property. The entire crown of this tree is situated off the property. I would consider it more of a liability to the development than an asset.

Diligence is required to preserve neighboring trees 9614, 9637 and 9640. These are likely to be significantly impacted during road and sidewalk construction. Fortunately the impacts will be to the north sides of the root zones, where there is less risk of compromising structural stability. The tree protection measures outlined below should be followed, specifically measures 3, 4 and 5. Moving the sidewalk into the planter strip may be warranted to avoid encroaching beyond the recommended limits of disturbance.

Tree #9722 is a mature silver maple with a very large crown spread. The majority of the crown extends far to the east and onto neighboring property. Crown reduction thinning, specifically on this east side is recommended to make the crown more uniform, and to reduce the risk of large branch failures.

Other potentially retainable trees are 10062, 10066, 10068, 10070, 10071, 9810, 9605, 9262 and 9515. These are all situated near the perimeters of proposed lots. All of these are currently in good condition. Tree 9108 may also be retained, if the sidewalk could be redesigned to avoid it. Limits of Disturbance are provided for these trees on the summary tables.

The "Limits of Disturbance" for trees proposed for retention have been evaluated on the ground. The recommended positioning of tree protection fencing and limits of disturbance has been delineated on the attached site plan for these trees and for the neighboring trees. The driplines that appear on the site plan provide a realistic indication of canopy coverage.

## **6. Tree Protection Measures**

Limits of Disturbance and tree protection fencing locations have been delineated on the site plan, found at the back of this report. This information should be transferred to the preliminary site plan that will be submitted with the preliminary permit application. The following guidelines are recommended to ensure that the designated space set aside for the preserved trees is protected and construction impacts are kept to a minimum. Standards have been set forth under Kirkland Zoning Code 95.35.6 of Chapter 95. Please review these standards prior to any development activity:

1. Tree protection fencing should be erected per the attached site plan prior to moving any heavy equipment on site. Doing this will set clearing limits and avoid compaction of soils within root zones of retained trees. Fencing should only be moved to the "Limit of Disturbance" just prior to commencement of work.
2. Any required clearance pruning should also occur before any large equipment is brought onsite. Any branches that may be damaged should be tied back or properly pruned back if warranted.
3. Excavation limits should be laid out in paint on the ground to avoid over excavating.
4. Excavations within the driplines or up to the "Limit of Disturbance" shall be monitored by a qualified tree professional so necessary precautions can be taken to decrease impacts to tree parts. Exploratory excavations with a qualified tree professional are warranted when work is required and allowed within the dripline.
5. To establish sub grade for foundations, curbs and pavement sections near the trees, soil should be removed parallel to the roots and not at 90 degree angles to avoid breaking and tearing roots that lead back to the trunk within the dripline. Any roots damaged during these excavations should be exposed to sound tissue and cut cleanly with a saw. Cutting tools should be sterilized with alcohol.
6. Areas excavated within the dripline of retained trees should be thoroughly irrigated weekly during dry periods.
7. If unexpected injuries occur to trees during construction, they should be evaluated as soon as possible so that appropriate treatments can be applied.
8. Fences should remain onsite until completion of construction and the Planning Official authorizes their removal.

## **7. Tree Replacement**

Whether or not the number of trees retained will satisfy the minimum density requirement is unclear at this time. Many of the trees on the perimeter are not worthy of preservation due to senescence, poor structure and suitability of species. For long-term planning of potential tree cover, it would be more beneficial to plant trees on the perimeter than to retain existing trees in sub-par condition.

Tree plantings will likely be preferred to enhance new landscaping. The site is suitable for a large variety of ornamental and native tree species. The best replacement tree locations for this site are on the perimeter and around the dwellings where growing space is available. Refer to the *Kirkland Plant List* for desirable species. . Native tree species of Sitka spruce and western red cedar could be planted in the wetland and at the edge for future enhancement.

For ornamental trees to be planted in the front and side yards, trees that mature at 20 to 40 feet are recommended. These trees could include the many cultivated varieties of red maple, cherry, plum, Callery pear, crab apple, ash, hawthorn, dogwood, and magnolia. Japanese stewardia, European hornbeam, Tartarian maple, or Amur maple are also smaller noteworthy specimen trees.

The required minimum size of supplemental trees shall be at least 6 feet in height for conifer species and at least 2 inches in caliper for deciduous trees. Caliper is measured at 1-foot above ground. For planting and maintenance specifications, refer to chapters 95.45 and 95.50 of the Kirkland Zoning Code.

## **8. Monitoring**

As trees mature, those caring and taking responsibility for them should be aware of the following indicators of declining tree health:

- Appearance of fungal fruiting bodies which will appear as small "shelves" on the bole and branches or mushroom-like growths near the base of the tree.
- Dead or soft flaky wood in cavities or under the bark.
- Thinning crowns.
- The appearance of yellow or orange needles other than near the stem. (Cedar trees may exhibit orange needles in the fall; this is called "flagging" and is a normal response to drought and not a symptom of long-term decline.)
- Leaning stems, extraordinary bark flaking, stem swelling or any other abnormalities on the bole.
- Extraordinary cone production.
- Insect entry holes. These are about the size of a pencil lead and probably are accompanied by "sawdust".
- Premature leaf-fall or the appearance of dead limb tips. Droopy top or thinning crown. Dying treetop.

*There is no warranty suggested for any of the trees subject to this report. Weather, latent tree conditions, and future man-caused activities could cause physiologic changes and deteriorating tree condition. Over time, deteriorating tree conditions may appear and there may be conditions not currently visible which could cause tree failure. This report or the verbal comments made at the site in no way warrant the structural stability or long term condition of any tree, but represent my opinion based on the observations made. Nearly all trees in any condition standing within reach of improvements or human use areas represent hazards that could lead to damage or injury.*

Please call if you have any questions or if we can be of further assistance.

Sincerely yours,



Bob Layton  
ISA Certified Arborist #PN-2714A



Christopher Riely  
ISA Certified Arborist #PN-6219A

Delineated wetland in northeast corner-comprised of black cottonwood



West edge of delineated wetland, mostly blackberry



East property line-through delineated wetland



#9722 – silver maple



Site photo of proposed Lot 5



Gravel road to Lots 1, 2 and 3 looking south



Gravel road to Lots 1, 2 and 3 looking north



Site photo of proposed Lot 6



Trees on proposed Lots 6 and 7-two in middle of photo suspected of root disease infection



Between proposed Lots 6 and 7- several root-diseased trees windthrown in this area





# Tree Summary Table

For: Glenealy Court Short Plat

International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag # Species	Native/ Planted/ Volunteer	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet)				Condition	Viability	Comments
					N	S	E	W			
9108 Douglas-fir	N	13	50	2.5	8	12	10	12	good	viable	ivy on lower trunk
9161 Douglas-fir	N	14	65	3	6	12	8	12/10	good	viable	
9162 Douglas-fir	N	7	60	1	4	5	0	8/10	fair	viable	crowded in row
9163 Douglas-fir	N	9	60	1	6	6	8	2/10	fair	viable	crowded in row
9164 Douglas-fir	N	14	65	3	10	10	12	18/10	good	viable	
9165 Douglas-fir	N	12	70	2	8	6	10	14/10	good	viable	
9191 Douglas-fir	N	28	130	10	12	15	16	20/15	good	viable	
9192 Douglas-fir	N	20	116	6	17	8	6	20/12	good	viable	
9194 Deodar cedar	P	8	28	1	10	10	10	8/8	good	viable	
9220 Douglas-fir	N	9	56	1	6	5	5	6/4	good	viable	
9231 bitter cherry	V	9	23	na	x	x	x	x	poor	nonviable	old broken top, total loss
9232 big leaf maple	N		62	na	13	16	15	11	poor	nonviable	4 stems - 6, 9, 9, 7"; stump sprouts
9234 big leaf maple	N	13	72	2.5	17	16	7	20	fair	viable	cavity at base, uniform crown
9245 big leaf maple	N	24	70	8	15	20	15	20	fair	viable	decay in butt
9247 bitter cherry	N	15	68	3.5	15	18	12	20	good	viable	
9248 big leaf maple	N	25	85	8.5	15	20	15	30	good	viable	nice crown, dominant tree
9250 big leaf maple	N	8	30	1	25	10	0	20	good	viable	overtopped by larger maples
9251 big leaf maple	N	17	65	4.5	30	0	20	0	fair	viable	vertical crack near base; lopsided
9252 western red cedar	N	38	95	na	15	15	12	18	poor	nonviable	dying top, decay in butt
9253 big leaf maple	N	15	60	3.5	15	25	0	10	fair	viable	butt decay, large branch lost in past
9254 European mountain ash	V	11	35	na	5	6	0	0	poor	nonviable	leaning to W, dead branches, poor health
9256 big leaf maple	N	9	45	1	20	18	20	5	good	viable	spreading crown, stump sprouts
9258 big leaf maple	N	27	90	9.5	23	32	23	20	good	viable	sound trunk, uniform crown
9259 big leaf maple	N	14	44	na	x	x	x	x	poor	nonviable	large cavity at base, overtopped
9260 big leaf maple	N	20	68	6	1/8	16/10	3/8	7/na	fair	viable	two 10" stems, poor taper
9261 Pacific madrone	N	10	22	na	0	0	0	20	poor	nonviable	heavy lean to adjacent property
9262 big leaf maple	N	20	77	6	18	13	3	14	fair/good	viable	sound trunk, typical form
9264 big leaf maple	N		25	na	x	x	x	x	poor	nonviable	cluster of 5 stems - 4-10" each
9265 western red cedar	N	14	37	3	11/8	10/10	10/8	12/na	excellent	viable	full, dense crown; top intact
9269 European mountain ash	V	20	35	6	12	9	13	11	fair	viable	two 10" trunks, some dieback
9271 cascara	N	16	25	na	9	16	22	8	poor	nonviable	dead branches, included bark, decay
9409 Douglas-fir	N	26	110	9	8	25	12	16	good	viable	
9410 Douglas-fir	N	18	98	5	2	20	13	5	fair	viable	thin, lopsided crown



# Tree Summary Table

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International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag #	Species	Native/ Planted/ Volunteer	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet)				Condition	Viability	Comments
						N	S	E	W			
9411	Douglas-fir	N	23	110	7.5	10	18	19	8	good	viable	
9412	Douglas-fir	N	23	105	7.5	15	12	14	15	good	viable	ivy on lower trunk
9413	holly	P	6	26	1	8	10	6	10	good	viable	
9414	dogwood	P	9	34	1	10	10	12	12	good	viable	
9415	big leaf maple	N	9	40	1	12	15	15	16	good	viable	
9428	Douglas-fir	N	29	125	10.5	20	9	12	13	good	viable	
9429	Douglas-fir	N	26	105	9	15	22	10	25	fair	viable	thin, lopsided crown
9430	Douglas-fir	N	11	50	1.5	4	15	6	10	good	viable	looks fine though overtopped
9512	Douglas-fir	N	31	130	11.5	15	21	22	20	good	viable	
9513	Douglas-fir	N	27	112	9.5	12	14	10	16	good	viable	past broken top, now cod. stems
9514	Douglas-fir	N	35	150	13.5	15	18	24	28	good	viable	
9515	Douglas-fir	N	26	125	9	16/na	8/12	8/12	12/10	good	viable	
9516	Douglas-fir	N	10	55	1	10/na	11/8	9/8	8/8	good	viable	
9517	Douglas-fir	N	10	50	1	15/na	6/8	10/8	11/8	good	viable	
9518	big leaf maple	N	29	70	10.5	30	10	20	30	good	viable	uneven crown, recommend reduction
9519	Douglas-fir	N	8	45	1	8/na	9/8	6/na	9/8	good	viable	
9520	Douglas-fir	N	15	68	3.5	12	11/10	14	12	good	viable	
9551	weeping willow	V	16	25	4	8/na	0/10	0/10	30/na	fair	viable	heavy lean to NW; potential liability
9557	apple	P	10 cal	15	1	6/6	4/6	6/6	6/na	fair	viable	topped at 6' in past
9594	Douglas-fir	N	18	105	5	6	8	7	4	fair	viable	small crown
9595	Douglas-fir	N	20	115	6	0	8	6	10	fair	viable	ivy, thin crown - suspect root rot
9596	Douglas-fir	N	26	128	9	18	8	10	15	good	viable	dominant tree, ivy on lower trunk
9597	Douglas-fir	N	25	105	8.5	18	16	15	22	good	viable	
9600	bitter cherry	N	8	45	1	12	10	6	8	fair	viable	getting crowded, will die
9601	western red cedar	N	8	35	1	6	8	6	6	fair	viable	crowded beneath other trees
9602	western hemlock	N	10	52	1	10	8	8	8	fair	viable	crowded from below, poor live crown
9603	Portuguese laurel	P	7	20	1	10	8	6	8	good	viable	leaf blotches: sign of anthracnose
9604	dogwood	P	11	40	1.5	8	15	10	16	poor	viable	non viable
9605	Douglas-fir	N	28	120	10	20/15	20/na	18/15	18/12	good	viable	
9616	Douglas-fir	N	11	72	1.5	5	10	8	8	fair	viable	crooked top, overtopped
9617	Douglas-fir	N	18	106	5	10	10	15	6	good	viable	
9620	Douglas-fir	N	13	70	2.5	6	12	12	15	fair	viable	past broken top, so crooked stem
9621	Douglas-fir	N	25	120	8.5	15	10	16	20	fair/good	viable	thin crown, ivy on lower trunk



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Inspector: Layton/Riely

Tree/Tag #	Species	Native/ Planted/ Volunteer	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet)				Condition	Viability	Comments
						N	S	E	W			
9631	Douglas-fir	N	12	80	2	6	10	12	8	good	viable	surrounded by taller trees
9632	Douglas-fir	N	20	120	6	15	20	6	15	fair/poor	viable	wounds/bleeding pitch near base
9634	Douglas-fir	N	15	100	3.5	6	15	12	8	fair	viable	thin crown, suspect root rot
9635	big leaf maple	N	15	70	3.5	15	0	20	16	fair	viable	top broken twice, codominant stems
9636	Douglas-fir	N	32	145	12	14	10	20	12	good	viable	ivy on lower trunk
9639	Douglas-fir	N	32		12	10	13	8	12	fair/good	viable	no concerns
9642	Douglas-fir	N	30	150	11	25	6	30	25	good	viable	ivy on lower trunk
9643	Douglas-fir	N	34	150	13	6	30	25	15	good	viable	ivy on lower trunk
9644	Douglas-fir	N	25	110	8.5	10	12	12	8	good	viable	
9645	European white birch	V	15	70	3.5	15	10	20	8	fair	viable	lean to east
9647	Douglas-fir	N	19	88	5.5	9	8	11	3	fair	viable	minor sweep
9648	Douglas-fir	N	31	140	11.5	18	20	20	18	good	viable	
9649	Douglas-fir	N	34	130	na	15	12	12	14	fair/poor	nonviable	chlorotic, thin crown; some dieback
9651	Douglas-fir	N	29	103	10.5	6	10	18	4	fair	viable	thin crown, wind damaged top
9653	western red cedar	N	24	70	8	6	12	10	10	good	viable	suspect minor decay in lower trunk
9654	western red cedar	N	35	85	13.5	15	10	20	12	good	viable	
9655	Norway maple	N	11	35	1.5	15	16	15	18	good	viable	codominant stems
9656	Douglas-fir	N	24	105	8	6	14	10	6	fair	viable	thin crown, crooked top
9686	Douglas-fir	N	17	75	4.5	10	12	12	20	fair	viable	leaning to north, wind damaged top
9689	mountain ash	N	6	25	1	6/na	10/6	12/6	8/6	good	viable	
9696	western red cedar	N	12	60	2	10	18	8	8	good	viable	no concerns
9697	western red cedar	N	19	65	5.5	10	18	8	8	good	viable	no concerns
9698	Sitka spruce	N	13	56	2.5	11	18	12	8	fair	viable	overtopped and suppressed
9699	Lombardy poplar	P	40	125	16	8	8	8	8	fair/good	viable	bleeding lower trunk, suspect decay
9702	Douglas-fir	N	21	90	6.5	8/na	10/10	6/na	8/10	fair	viable	broken top, slight lean north
9703	Douglas-fir	N	31	105	11.5	10/na	15/12	18/12	10/12	fair/poor	viable	bleeding & ants at base; in decline
9706	black cottonwood	N	23	130	7.5	16/na	10/12	18/12	16/10	good	viable	
9715	black cottonwood	N	6	40	na	0	6	0	12	fair	nonviable	poor taper, overtopped - will die out
9716	black cottonwood	N	9	45	na	8	10	12	6	fair-poor	nonviable	intermediate/overtopped
9717	black cottonwood	N	29	130	10.5	10/na	20/12	15/12	20/10	good	viable	
9719	Lombardy poplar	P	36	120	14	8	8	8	8	fair/good	viable	typical form, covered in ivy
9720	western white pine	N	16	60	4	6	12/12	6	20/12	fair	viable	natural lean to west-ivy on trunk
9722	silver maple	P	53	75	22.5	24/14	30/15	42/na	20/na	fair	viable	3 stems - 13, 10, 30"; heavy lean to E



# Tree Summary Table

For: Glenealy Court Short Plat

International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag # Species	Native/ Planted/ Volunteer	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet)				Condition	Viability	Comments
					N	S	E	W			
9758 Douglas-fir	N	42	132	17	16	18	16	16	fair/good	viable	trunk consumed in ivy, minor crooks
9759 cypress	V	6	40	1	5	6	5	5	good	viable	no concerns
9760 tulip poplar	P	23	94	7.5	20	16	25	15	good	viable	sweeping lower bole, leaning to NE
9762 bitter cherry	N	6	30	1	15	6	8	5	fair	viable	branch dieback
9782 bitter cherry	N	14	45	3	20	15	25	20	good	viable	short-lived, pioneer species
9783 bitter cherry	N	7	35	1	18	15	8	12	fair	viable	branch dieback
9785 western red cedar	N	10	40	1	10	12	4	4	fair	viable	
9786 western red cedar	N	11	45	1.5	12	12	4	6	good	viable	
9787 Malus-apple	P	8	40	na	8	20	6	10	poor	nonviable	broken lower fork/extensive decay
9788 western red cedar	N	12	55	2	8	5	10	6	good	viable	
9789 western red cedar	N	8	45	1	4	10	10	12	good	viable	
9790 Douglas-fir	N	16	100	4	8	16	15	10	good	viable	
9791 holly	V	7	35	1	5	6	8/6	5	good	viable	
9792 holly	V	5	35	na	4	10	8/6	5	good	viable	non-significant
9793 holly	V	8	35	1	8	6	8/6	8	good	viable	fork-codominant stems
9794 holly	V	6	35	1	4	5	6/6	10	good	viable	
9795 Lombardy poplar	P	28	125	10	10/8	12	15/12	6	good	viable	
9800 western red cedar	N	15	53	3.5	4	16/10	12/10	10	good	viable	ivy on lower trunk
9801 western red cedar	N	10	48	1	8/8	4	12/10	8	good	viable	ivy on lower trunk
9807 Douglas-fir	N	32	95	12	30	16	20/15	15	fair	viable	old broken top-crook, new leader
9808 Douglas-fir	N	25	115	8.5	20	8	16/15	24	good	viable	
9809 Douglas-fir	N	27	105	9.5	10	16	30/15	25	good	viable	significant fork
9810 Douglas-fir	N	25	115	8.5	20/12	15/15	20/15	12/na	good	viable	
9818 holly-variegated	P	8	25	1	4	8	6	4	fair	viable	lean to south
9821 Lawson cypress	P	8	35	na	x	x	x	x	dead	nonviable	recently dead
9822 Lawson cypress	P	6	35	na	x	x	x	x	dead	nonviable	recently dead
9823 big leaf maple	N	13	45	2.5	10/7	13/8	16/na	20/8	good	viable	typical form
9824 western red cedar	N	13	45	2.5	10/7	4/na	12/na	10/7	fair	viable	overtopped but OK in grouping
9825 western red cedar	N	9	40	1	5/na	2/na	15/na	12/8	good	viable	
9826 western red cedar	N	12	40	2	2/na	10/8	15/na	16/8	good	viable	
9830 Lawson cypress	P	9	40	na	4	2	6	8	poor	nonviable	overcrowded/suppressed
9831 Lawson cypress	P	6	40	na	2	8	6	7	poor	nonviable	overcrowded/suppressed
9832 Deodar cedar	P	14	60	3	8/8	8/na	12/na	12/8	fair-good	viable	overcrowded/suppressed



**Tree Summary Table**  
For: Glenealy Court Short Plat

International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag # Species	Native/ Planted/ Volunteer	Tree DBH	Height	Credit	Drip-Line/Limits of Disturbance (feet)				Condition	Viability	Comments
					N	S	E	W			
9833 Deodar cedar	P	14	58	3	5/na	8/7	8/na	15/8	fair/good	viable	
9834 Deodar cedar	P	12	60	2	8/na	8/6	16/na	10/6	fair-good	viable	overcrowded/suppressed
9835 Deodar cedar	P	13	65	2.5	6	8	8	10	fair/good	viable	slight crooks
9836 Douglas-fir	N	16	67	4	10	10	14	8	fair/good	viable	minor sweep, slight lean
9837 Douglas-fir	N	8	49	1	6	6	6	6	fair	viable	
9838 Malus-apple	P	16	40	4	10	16	12	15	good	viable	typical form
9839 silver maple	P	27	55	9.5	12	25	30	18	fair	viable	lean to east/ large crown spread
9839 western red cedar	N	17	48	4.5	10	10	14	10	good	viable	no concerns
9843 Douglas-fir	N	19	45	5.5	16	15	18	15	fair	viable	crook from broken top
9844 big leaf maple	N	12	40	2	20	18	18	20	good	viable	clump of 3 stems
9845 Douglas-fir	N	11	45	1.5	8	6	12	6	fair	viable	
9846 western red cedar	N	11	25	1.5	9	12	8	8	fair	viable	
9847 western red cedar	N	15	25	3.5	10	13	8	11	fair/poor	viable	topped for utility lines
9848 western red cedar	N	9	30	1	8	8	8	8	fair/poor	viable	topped for utility lines
9849 western red cedar	N	11	32	1.5	7	7	7	7	fair/poor	viable	topped for utility lines
9850 Douglas-fir	N	16	32	4	12	11	16	11	fair/poor	viable	topped for utility lines
9944 shore pine	P	14		3	8	3	9	6	poor	viable	two 7" stems; poor form & pruning
9945 red pine	P	16		4	9	12	11	6	fair	viable	codominant stems
10039 silver maple	P	26	82	9	18	35	35	20	fair	viable	multiple forks, leaning to E
10040 western red cedar	N	13	35	2.5	5	10	8	0	fair	viable	codominant stems/overtopped
10041 western red cedar	N	9	35	na	6	10	0	0	poor	nonviable	thin, suppressed
10042 western red cedar	N	9	35	na	4	12	4	4	poor	nonviable	thin crown/overcrowded
10047 bitter cherry	N	6	30	1	10	8	6	10	good	viable	short-lived, pioneer species
10057 Douglas-fir	N	20	85	6	20	15	8	6	good	viable	
10058 Douglas-fir	N	7	45	1	15	12	15	10	good	viable	
10059 bitter cherry	N	7	30	1	12	10	15	7	good	viable	
10060 Douglas-fir	N	19	70	5.5	8	8	18	6	fair	viable	overtopped
10062 Douglas-fir	N	22	110	7	20/12	18/15	12/10	16/na	good	viable	
10065 Douglas-fir	N	22	115	7	15/12	18/15	15/14	20	good	viable	tag on tree reads 10064
10066 Douglas-fir	N	31	140	11.5	18/15	22/15	20/14	25	good	viable	
10068 Douglas-fir	N	32	110	12	20/12	20/15	25/14	15	good	viable	
10069 Douglas-fir	N	28	100	10	25	15	18	20	good	viable	
10070 Douglas-fir	N	16	65	4	0/12	12/15	20/10	10	fair	viable	overtopped, lopsided top



**Tree Summary Table**  
For: Glenealy Court Short Plat

International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag # Species		Native/ Planted/ Volunteer	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet)				Condition	Viability	Comments
						N	S	E	W			
10071	Douglas-fir	N	19	95	5.5	6/na	25/15	12/12	15	good	viable	
10072	bitter cherry	N	8	45	na	8	6	15	0	dead	nonviable	snag, conks on lower trunk
10080	Douglas-fir	N	23	90	7.5	18/12	20	15/10	12	good	viable	
10081	western red cedar	N	7	45	1	4/5	8	5	0	fair	viable	crowded in row
10082	western red cedar	N	6	45	1	5/5	10	0	3	fair	viable	crowded in row
10083	western red cedar	N	17	50	4.5	8/10	15	4	12	good	viable	
10127	big leaf maple	N	21	50	6.5	20	20	30	20	good	viable	large crown
10132	Pacific dogwood	N	15	34	3.5	9/8	11/8	7/7	11/8	fair/good	viable	two trunks - 9, 6"

Trees on neighboring parcels

8107 Douglas-fir	P	15	75	3.5	15	8	4	12/10	good	viable	at one end of row of planted trees
8981 white birch	P	10	36	1	22	6	12/8	6	good	viable	one in cluster of 4 birches
8987 western red cedar	P	9	25	1	6	6	5	8/6	good	viable	in row near street/property corner
8988 Douglas-fir	P	10	47	1	10	7	10	6/6	good	viable	in row near street/property corner
9015 apple	P	7	20	1	4	5	8	8	fair	viable	in row of apple trees, topped in past
9016 apple	P	10	34	1	8	7	10	12	good	viable	in row of apple trees, topped in past
9151 Douglas-fir	N	14	38	3	8	16	10/6	16	good	viable	open-grown tree pruned to 12'
9166 Douglas-fir	N	9	60	1	10	8	8	6/10	good	viable	
9167 Douglas-fir	N	29	128	10.5	4	18	12	10/8	good	viable	lopsided crown due to neighbors
9168 Douglas-fir	N	18	74	5	8	6	0	16/8	fair	viable	crowded between two larger firs
9169 Douglas-fir	N	40	145	16	25	10	12	25/12	good	viable	huge dominant tree
9219 Douglas-fir	N	11	56	1.5	10	6	8	8/6	good	viable	ivy on lower trunk
9220 Douglas-fir	N	9	53	1	6	6	7	10/6	good	viable	ivy on lower trunk, slight lean to W
9221 Douglas-fir	N	11	45	1.5	4	8	8	8/6	good	viable	ivy on lower trunk
9225 Douglas-fir	P	19	85	5.5	10	18	12/8	7	good	viable	at one end of row of planted trees
9614 Douglas-fir	N	19	110	5.5	4/4	na	na	na	fair	viable	one-sided crown
9637 Douglas-fir	N	29	140	10.5	20/8	8	10	25/10	good	viable	ivy
9640 Douglas-fir	N	13	50	2.5	20/6	6/8	15/8	8	fair	viable	overtopped/suppressed
9701 bitter cherry	V	11	54	1.5	na	12/5	na	na	fair	viable	wood borers in base
9707 European mountain ash	V	11	33	na	na	na	na	na	poor	nonviable	cracked upper bole; in decline
9732 black cottonwood	N	20	135	6	na	na	na	6/6	fair	viable	poor taper
9739 black cottonwood	N	14	115	3	na	na	na	8/6	fair	viable	poor taper
9740 black cottonwood	N	20	130	6	na	na	na	8/6	fair	viable	poor taper



**Tree Summary Table**  
For: Glenealy Court Short Plat

International Forestry Consultants, Inc

Date: 6/28&29/2007

Inspector: Layton/Riely

Tree/Tag # Species	Native/ Planted/ Volunteer	DBH	Height	Tree Credit	Drip-Line/Limits of Disturbance (feet)				Condition	Viability	Comments
					N	S	E	W			
9741 black cottonwood	N	10	95	na	na	na	na	2/5	fair/poor	nonviable	poor taper, leans north
9946 western hemlock	P	12	26	2	10	10	8/8	12	good	viable	native species planted as yard tree
9947 Scots pine	P	21	42	6.5	15	15	10	12/8	good	viable	forks into three stems at 6'
9948 red pine	P	13	38	2.5	8	12	10	10/8	good	viable	nice symmetrical form
9951 Douglas-fir	N	24	92	8	8	20	12	20/15	good	viable	wide crown, healthy tree
10024 apple	P	16	20	4	10	10	10/8	10	good	viable	enclosed in fenced backyard
10063 red pine	P	9	30	1	12	10	4	15	good	viable	codominant stems/top
no tag big leaf maple	N	13	51	2.5	10/8	8	7	17	fair/good	viable	fair taper - OK
no tag big leaf maple	N	10	45	1	12/8	7	14	5	fair/good	viable	fair taper - OK

Parcel Trees - Drip-Line and Limits of Disturbance measurements from face of trunk

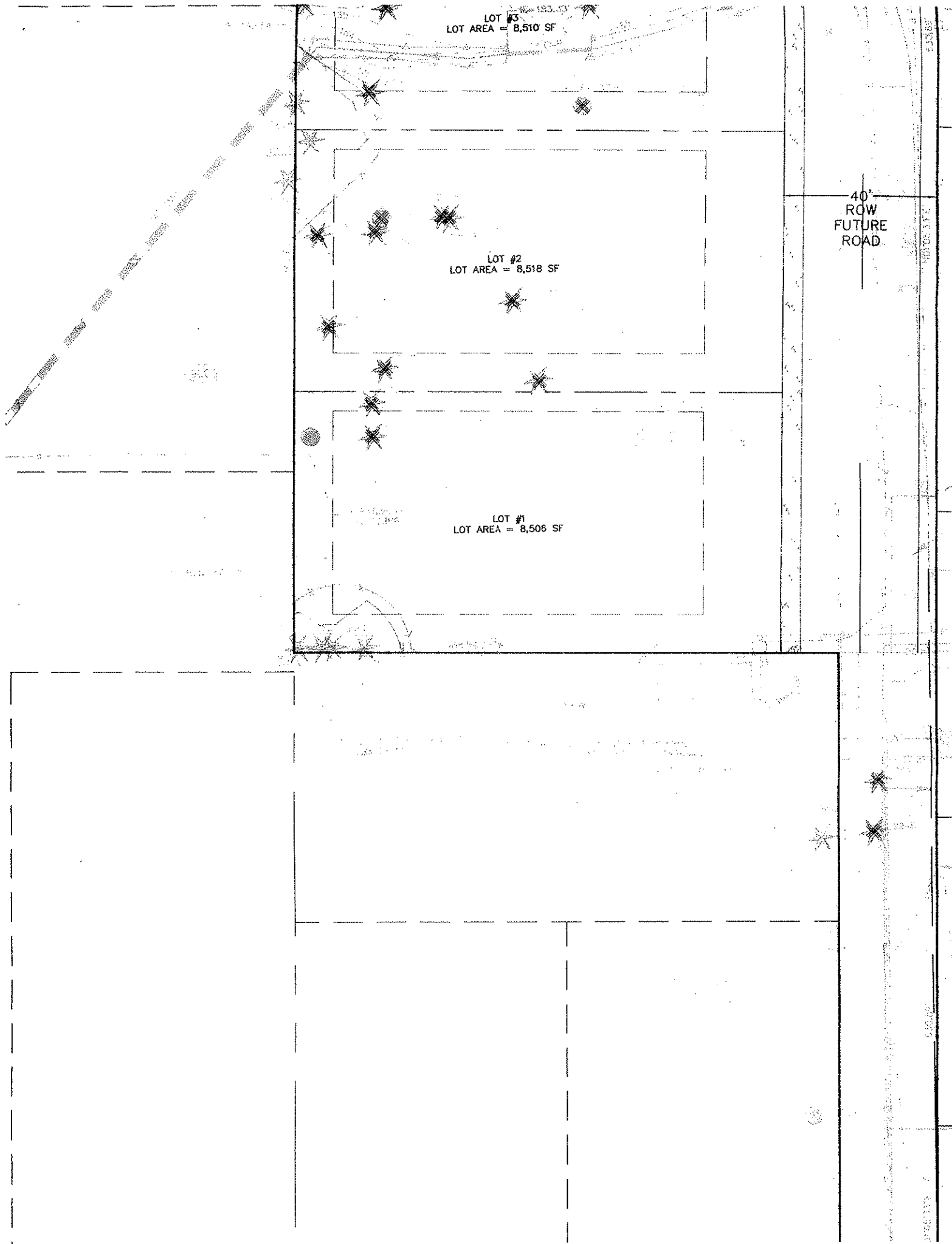
Trees on neighboring properties - Drip-Line and Limits of Disturbance measurements from property line

LOT #3  
LOT AREA = 8,510 SF

LOT #2  
LOT AREA = 8,518 SF

LOT #1  
LOT AREA = 8,506 SF

40'  
ROW  
FUTURE  
ROAD

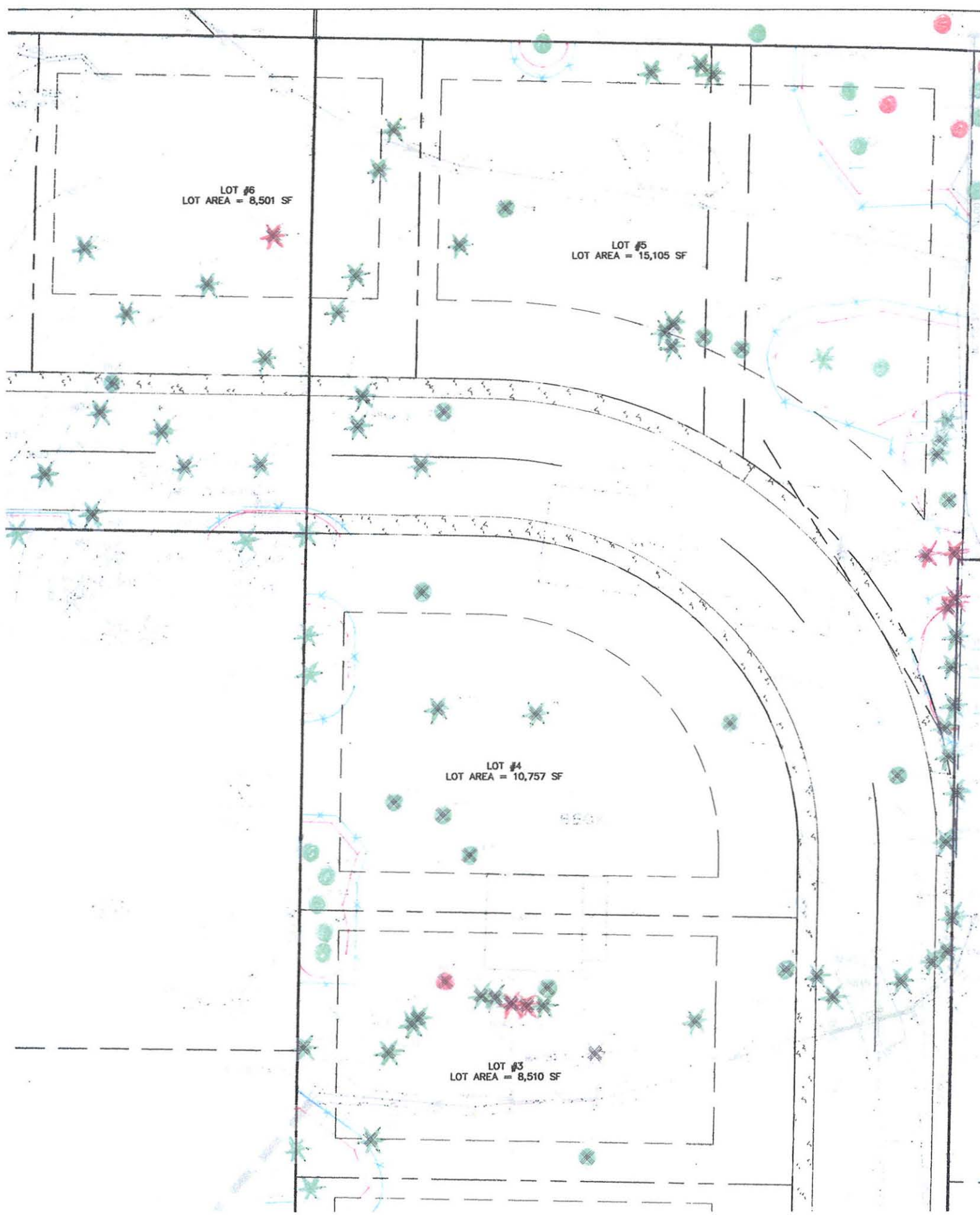


LOT #6  
LOT AREA = 8,501 SF

LOT #5  
LOT AREA = 15,105 SF

LOT #4  
LOT AREA = 10,757 SF

LOT #3  
LOT AREA = 8,510 SF



10' BSDL

5' BSDL

LOT #9  
LOT AREA = 8,506 SF

LOT #8  
LOT AREA = 9,360 SF

LOT #7  
LOT AREA = 8,510 SF

LOT #10  
LOT AREA = 8,888 SF

LOT #11  
LOT AREA = 8,781 SF

SCOUR-OUT

## City of Kirkland-Tree Protection Standards

1. Tree Protection Fencing shall be erected at prescribed distance per arborist report. Fences shall be constructed of chain link and be at least 4 feet high.
2. Install highly visible signs on protection fencing spaced no further than 15 feet apart. Signs shall state "Tree Protection Area-Entrance Prohibited", and "City of Kirkland" code enforcement phone number.
3. No work shall be performed within protection fencing unless approved by Planning Official. In such cases, activities will be approved and supervised by a "Qualified Professional".
4. The original grade shall not be elevated or reduced within protection fencing without the Planning Official authorization based on recommendations from a qualified professional.
5. No building materials, spoils, chemicals or substances of any kind will be permitted within protection fencing.
6. Protection Fencing shall be maintained until the Planning Official authorizes its removal.
7. Ensure that any approved landscaping within the protected zone subsequent to the approved removal of protection fencing be performed with light machinery or hand labor.

In addition to the above, the Planning Official may require the following:

- a. If equipment is authorized to operate within the root zone, the area will be mulched to a depth of 6" or covered with plywood or similar material to protect roots from damage caused by heavy equipment.
- b. Minimize root damage by excavating a 2-foot deep trench, at edge of protection fencing to cleanly sever the roots of protected trees.
- c. Corrective pruning to avoid damage from machinery or building activity.
- d. Maintenance of trees throughout construction period by watering.

**From:** Elizabeth Walker [ewtreelady@gmail.com]  
**Sent:** Tuesday, February 26, 2008 8:54 AM  
**To:** David Barnes  
**Subject:** notes for Glenealy subdivision

**Importance:** High  
Sorry for the delay in this:

There are several trees that have grown on the parcels for the proposed subdivision. The majority of them is native and includes species that generally are not viable for preservation and long-term retention for a residential site (e.g. bitter cherry and black cottonwoods). Other trees are less than desirable ornamental species (e.g. apple) and/or are growing closely together. The species and growth/form factors influence the assigned Tree Types. In determining the tree types, the city forester developed categories that are more or less depicted by color highlights on Plan C 3.1:

Green with 1: Type 1

Green: Type 2 viable

Yellow: Type 2 marginal and/or in conflict with LSM improvements (serious consider removal)

Orange: Type 3 non-viable due to health and condition

Of the 173 trees inventoried by the applicant's arborist, only two would be considered Type 1: 9248 and 9265  
On page 3 of the arborist report there are 21 trees that are Type 3 due to condition, defects.

David – is this enough? I'll be stopping by this afternoon with plan and report for you to complete your staff report.  
Thanks.  
Call me on my cell if needed – 206-697-2418.

**Elizabeth G. Walker**  
Sound Tree Solutions, Inc.  
POB 1745 Duvall WA 98019  
425/844-9038  
425/788-1257 fax